

**Before the  
Federal Communications Commission  
Washington, DC 20554**

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Applications of Comcast Corporation,	)	
Time Warner Cable Inc., Charter	)	
Communications, Inc., and Spinco	)	
	)	MB Docket No. 14-57
to Assign and Transfer Control of FCC	)	
Licenses Transfer Control of Licensees and	)	
Other Authorizations	)	
	)	

**COMMENTS OF CHRISTOPHER S. YOO**

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I am pleased to submit my comments regarding the proposed transaction between Comcast Corp.; Time Warner Cable Inc.; Charter Communications, Inc.; and Spinco. The views presented are my own and should not be attributed to my employer or to the Center for Technology, Innovation, and Competition.<sup>1</sup>

Those raising concerns about the merger have generally focused on two distinct markets: (1) the market for the distribution of traditional cable television and (2) the market for broadband Internet access. In short, established principles of antitrust and communications law dictate that

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<sup>1</sup> I have not received any compensation for these comments, nor have I been retained by any party with a financial interest in these proceedings. In the past, Comcast has provided financial support the Center for Technology, Innovation, and Competition (CTIC). Those gifts did not provide Comcast with any input into the programs run by CTIC or the positions taken by CTIC faculty.

the merger is unlikely to harm consumers in either market. In fact, technological and economic changes are transforming the markets in ways that should make the prospect of anticompetitive harms even more remote.

## I. TRADITIONAL MULTICHANNEL VIDEO

The first relevant market involves the distribution of traditional cable networks. In this market, cable operators enter into three types of transactions. First, they pay television networks such as ESPN, Nickelodeon, and the Disney Channel for the rights to retransmit video programming. Second, they collect subscription fees from consumers who wish to view that programming. Third, they receive revenue from local advertisers who wish to reach local subscribers. Although each market should be analyzed separate, the end conclusion is the same in each case, that is, none of these markets is structured so that the merger is likely to harm consumers.

### A. End-User Subscriptions

With respect to subscribers, cable operators in different cities serve different geographic markets and as a result do not compete with one another. In short, consumers would have the same number of choices of multichannel video providers the day after merger that they did the day before. Thus, a merger between cable operators serving different cities should not affect the prices that subscribers pay for cable television subscriptions.<sup>2</sup>

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<sup>2</sup> See Christopher S. Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 YALE J. ON REG. 171, 222 (2002).

## B. Video Programmers

The geographic scope of the market in which cable operators contract with video programmers is very different from the one in which cable operators contract with subscribers. As both the Federal Communications Commission (FCC) and the U.S. Court of Appeals for the D.C. Circuit have recognized, video programmers do not really care if they reach viewers in any particular metropolitan area. Instead, their primary concern is whether they can reach a sufficient number of customers to achieve minimum viable scale.<sup>3</sup> The proper geographic scope of this market is thus national. For them, it is national reach, not local reach that matters.<sup>4</sup>

Any arguments that that the merger would create anticompetitive harms to video programmers must overcome one potentially insuperable obstacle. On two occasions, the FCC attempted to institute rules prohibiting cable operators from controlling more than 30% of the nation's multichannel video subscribers in order to protect the interests of video programmers. On both occasions, the courts invalidated the rules because the FCC's rationale for imposing the 30% limit was arbitrary and capricious. In both cases, the court indicated that the available evidence suggested that cable operators could control much larger shares of the national market without harming video programmers, driven largely by the advent of competition from direct broadcast satellite (DBS) providers, such as DirecTV and the Dish Network.<sup>5</sup>

Given that the merging parties have committed to reduce their holdings so that the resulting company will control no more than 30% of the national market, these court decisions

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<sup>3</sup> See *Comcast Corp. v. FCC*, 579 F.3d 1, 4, 7 (D.C. Cir. 2009) (citing Commission's Cable Horizontal and Vertical Ownership Limits, Fourth Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd. 2134, 2162 (2008)); *Time Warner Entm't Co. v. FCC*, 240 F.3d 1126, 1131 (D.C. Cir. 2001) (citing Implementation of Section 11(c) of the Cable Television Consumer Protection and Competition Act of 1992, Third Report and Order, 14 FCC Rcd. 19098, 19114–16 ¶¶ 40–41 (1999)).

<sup>4</sup> Yoo, *supra* note 2, at 227.

<sup>5</sup> See *Comcast*, 579 F.3d at 6–8; *Time Warner Entm't*, 240 F.3d at 1132.

essentially foreclose arguments that anticompetitive harms to video programmers would justify blocking the merger. Indeed, the courts' analyses were based on the competitive environments that existed in 2001 and 2009. Since that time, these markets have become even more competitive. The number of multichannel video subscribers has increased from 96 million to 101 million by 2012.<sup>6</sup> Thus, even under the specious justification for the 30% threshold rejected by the courts, the percentage of the national market that one cable operator can control should rise above 30% without causing any harm to video programmers. Since that time, Verizon's FiOS and AT&T's U-verse networks have expanded their customer bases. Internet-based video platforms such as Netflix, Amazon, Hulu, Google, Roku, and Apple have emerged as significant market players. In addition, the costs of program acquisition have risen sharply, as program providers have increased their bargaining power.

The one type of programming for which the market is not national is sports. Interest in regional sports programming tends to be highly localized. People who live in the Philadelphia area tend to follow Philadelphia sports teams. A merger between the cable company that serves the Philadelphia area with the cable company serving the Los Angeles area would not alter the relative bargaining power of the Philadelphia-area sports teams or the Philadelphia-area cable provider.

Moreover, it is not clear how such a combination would hurt any advertising market. National advertising revenue naturally seeks national distribution channels. In terms of local advertising, FCC data discussed below indicate that cable represents only 7% of the local advertising market.

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<sup>6</sup> See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Fifteenth Report, 28 FCC Rcd. 10496, 10499 ¶ 3 (2013) [hereinafter Fifteenth Video Competition Report].

It is possible that a market for regional advertising may exist. Any concerns would require an examination of actual behavior and the extent to which advertisers regard local and national advertising as a substitute for regional advertising. In addition, advertising markets can be very hard to define. Different advertising avenues vary in their ability to reach different types of demographics. As a result, it is impossible to make predictions in the abstract that the merger will harm the market for regional sports programming. Such a conclusion would depend on a very careful and fine-tuned analysis of actual market conditions.

These considerations suggest that the merger would not create an industry structure that would raise concerns about anticompetitive harms to video programmers under established principles of antitrust and communications law. Even if such concerns had merit, however, they are properly addressed by the program carriage and access rules that the FCC has developed to address just these problems. Commissioners of the Federal Communications Commission (FCC) and commentators have long criticized the use of merger conditions as a mechanism for making policy.<sup>7</sup> Traditional notice-and-comment rulemaking promotes public participation. By their

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<sup>7</sup> See, e.g., Applications of AT&T Inc. and Centennial Communications Corp., Memorandum Opinion and Order, 24 FCC Rcd. 13915, 13972 ¶ 141 (2009); Verizon Communications Inc. and MCI, Inc., Memorandum Opinion and Order, 20 F.C.C.R. 18433, 18573 (2005) (separate statement of Abernathy, Comm'r); Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee, Memorandum Report and Order, 16 F.C.C.R. 6547, 6713 (2001) (Powell, Comm'r, concurring in part and dissenting in part); Applications of Ameritech Corp., Transferor, and SBC Communications Inc., Transferee, Memorandum Opinion and Order, 14 F.C.C.R. 14712, 15197-200 (1999) (Powell, Comm'r, concurring in part and dissenting in part); *id.* at 15174-96 (Furchtgott-Roth, Comm'r, concurring in part and dissenting in part); Application of Worldcom, Inc. and MCI Communications Corp. for Transfer of Control of MCI Communications Corp. to Worldcom, Inc., Memorandum Report and Order, 13 F.C.C.R. 18025, 18166 (1998) (separate statement of Powell, Comm'r); *id.* at 18159 (separate statement of Furchtgott-Roth, Comm'r). For commentators' criticisms of the merger conditions, see Rachel Barkow & Peter Huber, *A Tale of Two Agencies: A Comparative Analysis of FCC and DOJ Review of Telecommunications Mergers*, 2000 U. CHI. LEGAL F. 29, 54, 62-66, 69-81; Harold Furchtgott-Roth, *The FCC Racket*, WALL ST. J., Nov. 5, 1999, at A18; Bryan Tramont, *Too Much Power, Too Little Restraint: How the FCC Expands Its Reach Through Unenforceable and Unwieldy "Voluntary Agreements,"* 53 FED. COMM. L.J. 49, 51-59 (2000); Daniel E. Troy, *Advice to the New President on the FCC and Communications Policy*, 24 HARV. J.L. & PUB. POL'Y 503, 505-09 (2001); Philip J. Weiser, *Institutional Design FCC Reform and the Hidden Side of the Administrative State*, 61 ADMIN. L. REV. 675, 708-11 (2009); Christopher S. Yoo, *New Models of Regulation and Interagency Governance*, 2003 MICH. ST. DCL L. REV. 701, 704.

nature, merger conditions restrict conduct permitted by the existing rules (otherwise the restriction would be imposed by general regulation rather than by the order clearing the merger). The problem is that they are imposed outside of the normal regulatory processes, and even when orders clearing the merger are subject to notice and comment, the resolution of the issues is more likely to be driven by the issues raised by a particular transaction and less likely to yield a clear statement of agency policy.

In many cases, merger conditions address conduct that is not the result of the merger, and in most, if not all, cases, these issues addressed by the merger conditions are the subject of ongoing proceedings before the FCC. The use of company-specific adjudications to address issues that confront the entire industry threatens to skew the competitive landscape and raises serious issues of fairness. Moreover, merger conditions often cannot be appealed, because the voluntariness of the commitment may well immunize it from meaningful judicial review.

At best, the use of the merger review process to impose conditions represents a source of delay and uncertainty that reduces the industry's ability to adjust to a rapidly changing and increasingly challenging technological and economic landscape. At worst, it represents a form of backdoor regulation that hurts consumers, singles out individual companies for restrictions that could not necessarily withstand the rigors of normal regulatory processes, and undermines democratic values as well as the integrity of agency processes.

The one matter on which the FCC and academic commentators agree is that merger clearances represent a bad way to impose access requirements. Not only does the resulting restriction apply only to the merging parties. Merger conditions are typically not subject to the full range of administrative procedures, such as public participation, the need for reasoned justification, and the discipline of judicial review. Most importantly, it would only address the

conduct of a handful of industry actors. It would do nothing to solve the same problems when they arise with respect to parties who have not recently merged. The proper venue for such issues is in a general regulatory or legislative proceeding, not the merger review process

Congress has the authority to take additional steps to mandate greater access for content, service, and application providers. It is not yet clear that such action is necessary at this time. With respect to traditional video, the FCC has a mature regime of program and network access rules designed to ensure that no actor can use its control over key content or key infrastructure to harm other actors in a way that harms consumers. With respect to the Internet, the Open Internet proceeding is considering whether and how best to address these types of concerns. At this point, the best course of action would be to permit these initiatives to continue while keeping a watchful eye on how things develop.

### **C. Local Advertising**

Finally, the merger is unlikely to harm the market for local advertising. The reason is simple: although cable television *networks* receive significant amounts of national advertising, the limited reach of local cable *operators* limits them to local advertising. The fact that local advertising occurs in different geographic markets means that, as was the case with cable television and broadband Internet subscribership, the merger will not cause any reduction in competition. FCC data indicates that cable television represents a minor share of local advertising revenues.

**Figure 1: Local Advertising Revenues by Sector (\$million)**

Sector	2011 act.	Share	2012 proj.	Share
Broadcast television	10,308	15%	11,802	17%
Cable television	4,164	6%	4,867	7%
Radio	11,264	16%	11,405	16%
Internet	11,602	17%	12,274	17%
Daily newspaper	16,915	25%	15,720	22%
Regional sports networks	842	1%	925	1%
Mobile	974	1%	2,064	3%
Telco	161	0%	230	0%
Other	12,313	18%	11,061	16%
Total	63,543	100%	70,348	100%

Source: Fifteenth Video Competition Report, *supra* note 6, at 10597 tbl.20.

Given the minor role that cable television plays in local advertising markets, it is hard to see how the merger could lead to anticompetitive harms. Moreover, the large amount of innovation that is occurring is likely to make the market for local advertising increasingly competitive in the near future.

## II. BROADBAND INTERNET ACCESS

With respect to broadband Internet access, the merged company would engage in two types of transactions. First, it would collect subscription fees from consumers who wish to access the Internet. Second, it would contract to interconnect with other Internet service providers to receive traffic that other end users and edge providers would like to send to current Comcast and Time Warner Cable subscribers and to terminate the off-network traffic that Comcast and Time Warner Cable subscribers generate. For reasons, I discuss below, the proposed merger is even less likely to create anticompetitive harms in the market for broadband Internet access than in the market for traditional multichannel video.



## **A. End-User Subscriptions**

As was the case with traditional multichannel video, the lack of any overlap in the areas served by Comcast and Time Warner Cable again makes it unlikely that the merger would affect the prices charged to subscribers.

Some observers have mistakenly asserted that the merged company would have market shares as high as 40% by disregarding DSL and other technologies. The fact that AT&T's DSL network is taking market share away from cable in areas where AT&T has upgraded its DSL network suggests that this approach is mistaken. Other analysts make the mistake of ignoring smaller players, who typically represent roughly 7% of the market, as well as the fact that the merging companies have pledged to divest 3 million subscribers. The resulting market share of the merged company would only be 30% of the multichannel video market and 32% of the broadband market, which is well below the levels traditionally associated with monopoly or monopsony power.

In addition, for reasons I detail in my recent article in the *Harvard Law Review*, the number of options that end users enjoy is increasing rapidly. Take digital subscriber lines (DSL), for example. Although many commentators have written DSL off for dead, a number of new technologies, including IP DSLAMs, pair bonding, and vectoring, are increasing the bandwidth that DSL can deliver. In November 2012, AT&T's Velocity IP committed to spend \$6 billion to expand the reach of its DSL network to provide at least 45 Mbps service to nearly 80% of its service area, with half of those households receiving 75 Mbps service. AT&T plans to increase the number of locations where AT&T's U-verse VDSL network to 33 million

locations (an increase of 8.5 million), 90% of these locations receiving 75 Mbps service and 75% of these locations receiving 100 Mbps.<sup>8</sup> CenturyLink is following a similar strategy.

But the real bellwether is Europe, where leading telecommunications providers as Deutsche Telecom, BT, Telecom Italia, and Orange are making VDSL the centerpiece of their broadband strategies. These speeds are clearly sufficient to compete with cable. Indeed, where AT&T has already upgraded its network, it is taking subscribers away from cable. And standard setting organizations are developing a new DSL technology known as G.fast capable providing 200-500 Mbps under normal circumstances and capable of providing 1 Gbps under ideal circumstances.

With respect to fiber-to-the-home (FTTH), Verizon's FiOS network has been joined by two new companies. Google Fiber has expanded beyond Kansas City to expand to Provo and Austin and has indicated that it plans to lay FTTH to thirty-four additional cities. In addition, AT&T has also begun deploying FTTH in Austin and in April announced plans to deploy FTTH in the Research Triangle and Piedmont Triangle areas of North Carolina. AT&T has announced plans to expand FTTH to 100 cities, including 21 major metropolitan areas.

In addition, wireless broadband providers are in a race to buildout LTE. Although some commentators have questioned whether LTE can deliver the speeds needed to become viable substitute to fixed-line broadband, *PC Magazine* and *Root Metrics* report that Verizon, AT&T, and T-Mobile each offer average download speeds of 12–19 Mbps and peak download speeds of 49–66 Mbps, well in excess of the 8 Mbps needed for HDTV. In addition, the LTE market allows for competition among multiple providers. Verizon completed its LTE buildout in mid-2013 and now serves 96% of the U.S. population. AT&T's LTE network reached 85% of the

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<sup>8</sup> Christopher S. Yoo, *Technological Determinism and Its Discontents*, 127 HARV. L. REV. 915, 919 (2014).

U.S. population by the end of 2013 and plans to reach 96% by the end of 2014. Sprint and T-Mobile each reached roughly two-thirds of the U.S. population by the end of 2013. By mid-2014, Sprint projected to reach 79%, and by the end of 2014, and T-Mobile's should reach 79%.

Moreover, LTE providers initially focused on making geographic coverage as broad as possible, even if that meant provisioning too little bandwidth in major metropolitan areas. These providers are now focusing on densification of urban areas which should help bring capacity in line with demand. In addition, if one gives up mobility and uses LTE to provide fixed wireless (in direct competition with cable), it is possible to use 8 antennas instead of 4, in which case the throughput rates increase dramatically.

And waiting in the wings is the next-generation technology known as LTE Advanced, which is already delivering of 150 to 300 Mbps in South Korea and Australia. It thus comes as no surprise that 10% of U.S. households have abandoned fixed-line service and rely entirely on mobile devices for their Internet access. This number is only likely to increase in the future.<sup>9</sup>

A comparison of the U.S. approach and those taken in other parts of the world demonstrate the value of the hands-off approach that the U.S. has taken with respect to the Internet. Despite some occasional rhetoric to the contrary, the actual data shows that European countries are by and large lagging far behind the U.S. in terms of high-speed broadband deployment and that European broadband companies are investing two to two-and-one-half times less than their American counterparts. Moreover, in terms of service providers, U.S. companies are the envy of the world. Even in Asia, where governments have mandated broadband buildouts, high-speed service is languishing with low take-up rates and enormous

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<sup>9</sup> *Id.* at 923–26.

financial losses. Together these comparisons provide a strong endorsement in favor of maintaining the U.S. approach of minimal government involvement with respect to the Internet.

When evaluating a merger, antitrust law counsels in favor of focusing on what the world will look like in the future rather than what the world looks like today, since it is the future world that matters. In this respect, the future looks quite bright. Indeed, we are seeing waves of investment driven by the competitive incentive to outdo one another. Those who have attempted to right off DSL, FTTH, and LTE as meaningful competitors to cable have done so without any empirical foundation. Indeed, observers have been writing off DSL for years only to be proven wrong time after time. Moreover, it was just a few short years ago where the Berkman Center report and other studies were writing off cable, arguing that it was no match for FTTH. The real lesson is that the future is hard to predict and that innovation has thrived most when no one has attempted to impose remedies based on any particular prediction of which technologies will succeed or fail.

## **B. Peering and Transit**

Cable operators also enter into contracts with other Internet service providers (ISPs) to exchange traffic originating or terminating on other networks. Typically, the originating ISP is the only one to receive direct payment from end users. Because the terminating ISPs also incur costs, the traditional rule was that the originating ISP would make what is known as a transit payment to compensate the terminating ISP for the costs it incurs serving the originating ISPs customers. If traffic is roughly symmetrical, ISPs can reduce costs by foregoing monitoring and billing for the exchange of traffic and instead calling it a wash, a practice commonly known as settlement-free peering. Such arrangements make economic sense only if the traffic exchanged is symmetrical. If traffic becomes out of ratio, peering contracts typically call for transit-style

payments. Thus, although peering is often misrepresented as zero-price interconnection, it is more properly regarded as a form of barter and is conditional on an even exchange.

Consider what would happen if one of the parties to a peering contract suddenly increased the amount of traffic that it was handing off to the other party for termination. The terminating ISP would have to incur significant costs to terminate the traffic. Certainly, the originating ISP would like the terminating ISP to bear all of the costs of doing so. Conversely, the terminating ISP would like the originating ISP to pay for the costs, as required by the typical peering contract. Both parties benefit from delivering greater value to the end users. The usual solution would be for both parties to bear part of the costs.

Indeed, this is exactly what appears to be occurring in the recent interconnection agreement between Comcast and Netflix. Netflix has been a spectacular success, growing to roughly one-third of all primetime Internet traffic in the U.S. Like any for-profit company, it would prefer it if the ISPs bore as much of the burden of the additional costs of carrying this traffic as possible. Indeed, that is the gist of its Open Connect program, which requires ISPs to terminate Netflix traffic for free. Some ISPs have embraced Open Connect. Others have resisted. All of this is a natural part of healthy bargaining process. As in the typical case, both sides reached an interconnection agreement that divides the costs. The terms represent nothing more than a garden-variety bargain over price that characterizes every arms-length economic transaction.

Although some have suggested that such interconnection agreements represent network neutrality violations, network neutrality only applies to how traffic is handled *within* an ISP's network. It does not apply to how the traffic arrives at an ISP, which inevitably travels by paths of different lengths and incurs different costs as it traverses a system composed of 30,000

separate networks tied together through arms-length interconnection agreements. Indeed, this is why the Open Internet Order specified that it does not apply to interconnection agreements<sup>10</sup> and why FCC Chairman Julius Genachowski made clear that the Open Internet Order does not apply to interconnection disputes, such as the prior dispute between Comcast and Level 3.<sup>11</sup>

The Comcast-Netflix interconnection agreement appears to be nothing more than a typical case of such bargaining. The agreement reduces Comcast's costs. The impact on Netflix is ambiguous: while it now must pay Comcast to terminate its traffic, it no longer needs to pay the third-party ISP on which it previously relied to reach Comcast in a classic case of efficiencies through cutting out the middleman. Although some have suggested that this might lead to a net reduction in Netflix's costs, that information is confidential and cannot be verified. In any event, interconnection represent a trivial revenue stream for Comcast and a tiny portion of Netflix's cost structure, which is dominated by program acquisition costs, which means that the transaction is unlikely to have any material effect.<sup>12</sup>

In addition, interconnection in the Internet space is fundamentally different from carriage agreements in cable television. In cable television, the failure to come to an agreement means that subscribers cannot receive particular content. With respect to the Internet, multiple ways to reach consumers always exist. In fact, Comcast maintains 40 settlement-free peering relationships and over 8,000 paid transit relationships. That means that edge providers will always have some way to reach Comcast customers even if they are unable to reach an direct interconnection agreement. The only bargaining advantage that Comcast would enjoy is the

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<sup>10</sup> Preserving the Open Internet, Report and Order, 25 F.C.C.R. 17905, 17944 n.209 (2010).

<sup>11</sup> *Network Neutrality and Internet Regulation: Warranted or More Economic Harm than Good?*, Hearing before the Subcomm. on Communications and Technology, H. Comm. on Energy and Commerce, 102d Cong., 1st Sess. 102 (2011), available at <http://www.gpo.gov/fdsys/pkg/CHRG-112hhrg65940/pdf/CHRG-112hhrg65940.pdf>.

<sup>12</sup> Dan Rayburn, *Here's How the Comcast & Netflix Deal Is Structured, with Data & Numbers*, STREAMING MEDIA BLOG, Feb. 27, 2014, <http://blog.streamingmedia.com/2014/02/heres-comcast-netflix-deal-structured-numbers.html>.

different between the interconnection terms and the cost of Netflix's next-best interconnection option. Although some have speculated that Comcast might still be able to discriminate against Netflix traffic flowing over other paths, that traffic is mixed with the traffic of other end users, which would require Comcast to inspect all of the traffic coming through that connection, which would be unrealistic and prohibited by Comcast's commitment to abide by the terms of the Open Internet Order.

The video industry is undergoing fundamental changes. Cable subscribership is slowly declining, and consumers are shifting more and more to online video. At the same time, content acquisition costs are increasing faster than the overall cost of cable television. These price trends suggest that content providers are in a stronger bargaining position than are able operators to the point where Cablevision has floated the possibility of abandoning the video business and simply allowing over-the-top providers like Netflix to fill the void.

In this world, agreements such as the one between Netflix and Comcast hold many benefits for consumers. As an initial matter, as a direct customer instead of an indirect customer, Netflix now has a service level agreement with Comcast that guarantees certain levels of service. At the same time, direct connections hold the promise of allowing the two companies to better coordinate their behavior to deliver content more effectively. In addition to obtaining better service, there are indications that such arrangements may reduce the prices that consumers pay. Although Netflix has to pay Comcast to terminate traffic, it no longer has to pay its former transit provider, Level 3. Industry observers have concluded that cutting out the middleman can yield substantial savings. Even if the net price does not go down, the enhanced service should provide considerable benefits to consumers.

As an added benefit, absent the interconnection agreement, all of Comcast's customers would have had to bear the costs of Netflix's increase in traffic regardless if they used the service or not. The interconnection agreement promotes fairness by ensuring that those who derive the benefits are the ones who bear the costs. The elimination of zero-cost pricing also avoids the problems that arise when edge providers have no incentive to economize on the volume of traffic they send, as well as address the legal concerns raised by Judge David Tatel in his decision in *Verizon v. FCC*.<sup>13</sup>

In terms of peering and the market for last-mile interconnection services, companies are experimenting with a wide range of different solutions, including proprietary data centers, collocated content delivery networks, and multitenant hosting in third-party data centers just to name a few. At the same time, each of these types of companies are experimenting with a wide range of commercial arrangements including for example traditional peering, paid peering, secondary peering, traditional transit, and paid transit. The parties should be permitted to experiment with different ways to satisfy all of these actors' shared interest in delivering content to end users in the most effective way

Any remaining concerns should be eliminated by the fact that Comcast has committed to abide by the terms of the FCC's Open Internet Order even though it was struck down by the courts. In fact, the merger would extend this benefit to all of Time Warner Cable's customers as well.

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<sup>13</sup> 740 F.3d 623, 658 (D.C. Cir. 2014).



## CONCLUSION

In closing, it bears keeping in mind how dynamic and unpredictable this sector has been. Consider the 2000 merger between Time Warner and America Online. What many predicted would be the end of history ended up simply being the end of \$200 billion in Time Warner shareholder value. In addition, just a few short years ago, many argued that fiber-to-the-home would soon consign the cable industry to the dustbin of history, whereas many of these same people now warn that cable represents a looming natural monopoly.

These episodes underscore how easy it is to hypothesize problems that never materialize and how easy it is to forget that innovation and willingness to undertake commercial risk have created greater consumer benefits than anyone could have anticipated. In this respect, the experience under merger conditions the Commission imposed when it cleared Comcast's acquisition of NBC Universal is instructive. Since that time, Netflix has thrived, as its subscribership numbers, revenue, and stock price have soared.<sup>14</sup> Netflix's success does not seem to be the result of the merger conditions created largely for its benefit. Indeed, to date, there does not seem to be any evidence that any OVD has invoked these provisions. While it is feasible that the lack of any conflict is simply bargaining in the shadow of the merger conditions, Comcast's conduct seems to be nothing more than ordinary licensing practices that are no different from any other industry actor. Instead, Netflix's rise appears to derive largely from its willingness to undertake the risk associated with billions of dollars in forward contracts for content.

Humility about even experts' ability to predict the future has led regulators to deemphasize hypothetical considerations and to insist on concrete harms backed by a clear

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<sup>14</sup> Yoo, *supra* note 8, at 934–36.

theory and backed by real-world data. Moreover, even if problems with access to content or networks were to materialize, the better practice would be to address them through general regulations that benefit the entire industry, such as the leased access and program access regimes.